

REMARKS

Claims 26-45 are pending in this application. In this Response, Applicant has amended certain claims. In light of the Office Action, Applicant believes these amendments serve a useful clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicant respectfully submits that the claim amendments do not limit the range of any permissible equivalents.

In particular, independent claim 42 has been rewritten to overcome an objection by the Examiner. As no new matter has been added, Applicant respectfully request entry of these amendments at this time.

ALLOWABLE SUBJECT MATTER

Applicant appreciates the Examiner's allowance of claims 34-41. In addition, Applicant appreciates the Examiner's recognition of allowable subject matter in claim 32 if rewritten in independent form.

CLAIM OBJECTIONS

Claim 42 is objected to by the Examiner as provided on page 4 of the Office Action. In response, claim 42 has been rewritten to remove the term of concern to the Examiner. As such, Applicant respectfully submits that the claim objection is overcome.

BRIEF DESCRIPTION OF THE PRESENT INVENTION

The present invention is directed to treating the *inner surface* of a metal wood golf club head to create a layer with residual compressive stress (Specification at Page 6, lines 1-3), as well to remove undesirable α -case. Removal of α -case serves several purposes, which are outlined in the Specification. Namely, α -case contains micro-cracking, which is linked to weakness and/or failure of the club head (Specification at Page 5, lines 20-21). Therefore, removal of the undesirable α -case will decrease the concern for failure in these areas. In addition, removal of the undesirable α -case may permit production of a club head with a face that is thinner than otherwise permitted (Specification at Page 6, lines 22-24).

THE REJECTION UNDER 35 U.S.C. § 103

Claims 26-31, 33, and 42-45 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,030,295 to Takeda in view of U.S. Patent No. 5,487,543 to Funk for the

reasons set forth on pages 2-3 of the Office Action. As discussed in more detail below, the combination of Takeda and Funk does not render obvious the present invention.

Takeda relates to a cavity back club head. As described by Takeda and well understood by those of ordinary skill in the art, a cavity back club head is an "iron" where a cavity comprising a hollow portion is formed in the rear of a head body having a striking face on the front thereof. Col. 1, lines 9-13.

In contrast, independent claims 26 and 42 feature a metal wood golf club head. As known to those of ordinary skill in the art, a metal wood golf club head and an iron club head have obvious differences in design, manufacturing, and performance. As such, a skilled artisan would not have been motivated to use a reference directed to an iron.

In addition, as noted by the Examiner, Takeda does not specifically reference removing a substantial amount of α -case from the inner surface of the front face. Office Action at Page 2. Instead, Takeda relies upon a cover 17 to eliminate the need for removal of the cutter marks on the interior of the cavity. The Examiner suggests that a skilled artisan would have found it obvious that, in the absence of Takeda's cover, shot blasting could be used to remove the cutter marks. Office Action at Page 2. Applicant respectfully disagrees with the Examiner's suggestion, especially in light of the fact that, until the present invention, the α -case was largely ignored on the inner surface of a club face, within score lines, and at welding areas because removal was difficult, if not impossible, using traditional chemical milling or other mechanical treatments because of the shape of the club head. *See, e.g.*, Specification at Page 6, lines 18-22.

And, even if a skilled artisan would have been motivated to look to Takeda to arrive at the present invention, *arguendo*, the mere mention of shot blasting without more teaching would not have provided sufficient instruction as to render obvious peening the inner surface of a club face. As discussed above, prior to the present invention, methods of treating the exposed ball striking surface were well known, but skilled artisans avoided treating the inner surface of a club face because of the difficulty involved.

It appears that the Examiner has attempted to cure this deficiency through Funk. As discussed below, however, Funk is also completely silent as to treating the inner surface of a club head and, thus, does not remedy the deficiencies of Takeda with respect to the present invention.

Funk generally discloses shot peening an exposed ball striking surface of a metal club head with negligible changes in the appearance of the striking face after the peening process. *See Abstract; See also* Col. 2, lines 20-32. In contrast to the present invention, however,

Funk is completely silent as to treating the *inner surface* of a club face. In light of the difficulties with treating an inner surface of a club face, as compared to the exposed ball striking surface, one of ordinary skill in the art would have had no reasonable expectation of success that the disclosure of Funk would translate into a method of treating an inner surface of a club face. Furthermore, because Funk does not even suggest treating the inner surface of a club face or removing the α -layer therefrom, a skilled artisan would have had no motivation to look to Funk without the use of impermissible hindsight.

For the reasons discussed above, the combination of Takeda and Funk does not render the present invention obvious. Thus, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of the pending claims.

CONCLUSION

All claims are believed to be in condition for allowance. If the Examiner believes that the present amendments still do not resolve all of the issues regarding patentability of the pending claims, Applicant invites the Examiner to contact the undersigned attorneys to discuss any remaining issues.

No fees are believed to be due at this time. Should any fee be required, however, please charge such fee to Swidler Berlin Shereff Friedman, LLP Deposit Account No. 195127, Order No. 20003.0067.

Respectfully submitted,

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By: _____



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